



Energy Future System Operator Consultation

KEY POINTS

- We are supportive of the Ofgem and Department for Business, Energy and Industrial Strategy (BEIS) proposal for a Future System Operator (FSO) and agree that it is a favourable approach to drive whole system decarbonisation at transmission level.
- Three possible enhanced roles and functions for FSO are set out for coordination with distribution networks. We are supportive of the first two for collaboration with Gas Distribution Networks (GDNs) to drive whole system optimisation, but disagree with the third, that the FSO should take on DSO functions in the future.
- Separation of system and network operation at distribution level is not in the interests of consumers. Our key points below are focused on this point.
- Distribution Network Operators (DNOs) are the best parties to fulfil Distribution System Operation (DSO) functions because we have the local expertise, we have already been active in developing these capabilities for some time, and our stakeholders support us in doing so.
- Separation would negate the benefits of the distribution equalised incentives regulatory framework:
 - The risks present on the transmission network that separation of system operation from network operation seeks to mitigate do not exist in the same way at distribution.
 - Perceived conflicts of interest in investment decisions at distribution are mitigated through equalised incentives, unlike the problematic regulatory framework present in transmission which Ofgem should seek to avoid recreating.
 - DSO functions taken on by the FSO would negate the benefit of totex benchmarking across DNOs which enables Ofgem to set efficient price controls, driving up costs for consumers.
 - The potential for synergies across investment categories, notably between investment in asset maintenance and reinforcement, would be lost, raising costs and negatively impacting service quality and network resilience.
- Customers will bear additional separation costs for separation of DSO from DNOs, which are compounded by the number of licensees compared to transmission.
- It further risks impacting service for customers by removing clear accountability from one party for delivering, and maintaining quality of, an essential service at the local level.
- The proposed timing of a decision around DSO institutional arrangements risks delaying investment in DSO in the short term.
 - DSO functions are rightly being formalised through RIIO-ED2. DNOs will be disincentivised to invest before the start of ED2 if a decision is expected by 2023.
 - It would require Ofgem/BEIS to make a decision about optimum DSO arrangements before consistent data is available on how baseline DSO activities are working and while relevant markets remain immature.

Responses to specific Ofgem questions

1. Do you agree that net zero will create the need for new technical roles in the electricity and gas systems, and require a new approach to energy system governance?

Ofgem published a comprehensive analysis in its review of GB energy system operation. Consistent with conclusions drawn in this report, our view is also that net zero requires new technical roles in electricity and gas and new energy system governance to drive decarbonisation at lowest cost.

2. Do you agree that the establishment of a Future System Operator is needed to fulfil the kinds of technical roles needed to drive net zero?

We agree that the proposal for an FSO, as supported by Ofgem's review of GB energy system operation, is appropriate to drive net zero. This is not the only approach that could be taken to fulfil the required technical roles but we consider it preferable to the other sources such as National Grid, Ofgem or BEIS.

3. Do you agree that a Future System Operator should have roles in both the electricity and gas systems?

We are supportive in principle of an FSO having roles in both gas and electricity for optimum whole system outcomes at transmission level. We set out below our arguments (principally in response to Q12) as to why this does not universally apply to the whole energy system, including to the distribution network.

4. Do you agree that a Future System Operator should be entirely separate from National Grid plc?

We agree that the FSO should be separate from National Grid.

When the Electricity System Operator (ESO) and Electricity Transmission Owner (ETO) were not separate, failings in the regulatory incentive system meant that cost incentives were different across these two activities, creating a potential or actual conflict of interest. Separation of the ESO from the ETO perpetuated these unequal cost incentives, and in so doing perpetuated the potential conflict of interest. The latest regulatory framework, with pass through costs for the ESO but with continued cost incentives for the ETO, has created even further scope for a conflict.

Separating the FSO from National Grid ETO will address this issue, and it allows for public ownership which we believe is more appropriate given the FSO's roles across the entire energy system.

5. What issues are there with existing institutional arrangements in the UK energy system in relation to system-wide decision-making and planning?

We have highlighted in response to Q4 one issue with the existing institutional arrangements – which is the separate price control, and very different incentives, for the ESO when compared to the ETO.

The existing institutional arrangements for IDNOs are also driving bad system wide outcomes, since they cross-subsidise property developers from energy customer bills in a way that is non-transparent (and against energy customer interests), and also create a fragmented system at the local level which can undermine accountability and could lead to poor outcomes for customers.

As detailed in Q12 below, there is the risk that decisions on institutional arrangements in respect of DSO are rushed before sufficient information is available, or market development is too immature to facilitate the best-informed decision making for the long term.

6. What examples/case studies are you aware of where net zero delivery in one part of the energy system did not adequately account for cross-system impacts or costs?

We have no case studies to share. The current system is generally built so that charges for new network access must be cost-reflective; therefore other parts of the energy system that require services can access them provided that the cost is justified.

7. Where should government focus in our efforts to improve systems thinking and coordination across the energy system?

We welcome policy decisions by Government backed up with concrete strategies and plans which facilitate practical change; for example a heat strategy. Prioritising data gathering to ensure informed decision making is also essential. Having set clear strategic direction, Government should make sure it affords Ofgem the political independence it needs to fulfil its functions properly.

8. Do you agree that the FSO should undertake all the existing roles and functions of NGEs? If not, please explain why.

We are not aware of reasons why the FSO should not take on all existing roles and functions of the ESO; however we do not have visibility of the ESO's operations in detail to comment further.

9. Do you agree there is a case for the FSO to undertake the long-term strategic functions outlined in Option 1? Please elaborate and provide any views on the functions we have outlined in Option 1.

Functions outlined in Option 1 appear reasonable. However, as detailed further in Q12 below, the principles and drivers of separation at transmission level do not apply at distribution level.

10. Do you agree that there is not currently a case for the FSO to undertake all GSO roles and functions, including real-time gas system operation, as outlined in Option 2? If you do not agree, please explain why.

The assessment presented appears reasonable; however as a DNO we are not in a position to comment fully on the appropriateness for gas system operation.

11. Do you have views on the proposal for an advisory role? What organisations do you consider would benefit from the provision of advice by the FSO? Who should bear the costs of providing that advice?

We are supportive in principle of the FSO taking on an advisory role from which government could benefit when setting policy decisions. The scope of the advisory role would however have to be tightly defined in order to avoid the risks that:

- an additional advisory body creates further inefficiency or conflicting views for energy industry parties, by, for example, having a disproportionate role in networks price controls; or

- there is duplication of effort, creating inefficiency and cost duplication, if scope were to extend to roles already undertaken by industry parties.

The cost of advice benefiting the wider energy industry ought to be socialised based on a clearly defined scope; however if advice were to be extended beyond this to specific private or profit-making entities it would not be appropriate to socialise such costs – such advice should be charged for on a cost reflective basis, to encourage efficient decision taking.

12. Do you have any views on the other areas where we are considering new and enhanced roles and functions for the FSO (outlined in section 3.2)?

Our response to this question is split into two: firstly we provide our view on the FSO's proposed functions around interaction with distribution networks, and secondly, in light of this response, on all other possible enhanced roles mentioned.

Interaction with distribution networks

The consultation proposes three possible enhanced functions in coordination with DNOs which include:

1. Working with DNOs/GDNs to enable whole system optimisation and planning;
2. Engagement with GDNs to bring consistency to gas distribution and transmission; and
3. FSO taking on DSO functions itself.

In response to each as numbered above:

1. This is sensible and we are in favour;
2. We do not have expertise in this area but agree that it appears sensible on face value; and
3. This would be a mistake. Whilst we are supportive of the principle of separation for the FSO at transmission level, given significant differences between ESO and DSO we are not of the view that separation for DSO is in the interests of consumers.

We do not agree that DSO functions should be taken on by the FSO.

There are four reasons for our conclusion:

1. **DNOs are the best parties to fulfil DSO functions because local visibility is essential**
2. **Separation would negate the benefits of the distribution equalised incentives regulatory framework**
3. **Separation will give rise to additional costs for consumers**
4. **Customers' quality of service will be negatively impacted.**

Each reason is explained in further detail below.

1. DNOs are the best parties to fulfil DSO functions because local visibility is essential

DNOs are the right people to carry out DSO functions because we have been taking preparatory action for some time to do so. The ESO (or FSO) does not have the appropriate expertise or presence to efficiently carry out this function; indeed the ESO has suggested this same point. There is no evidence available to suggest that DNOs are not the right party to continue to develop DSO functions.

Northern Powergrid set out its DSO vision in the DSO transition plan v1.0 originally published in December 2018, which was updated following extensive stakeholder consultation in October 2019 (v1.1). Our local knowledge and relationships with key local stakeholders, including local and combined authorities and key parties in industry and transport mean that we are best equipped to conduct effective granular whole system planning. It is local action that we are planning; to be around the local planners and bodies is key to successful local energy planning – and we in the DNO are therefore best placed to be able to do this activity. If DSO functions were to be transferred to a central FSO it would represent a poor outcome for consumers and would risk increased costs or ill-informed decision making for achieving local outcomes.

We already engage regularly and extensively with the ESO and have well-defined interfaces with them which ensure that our planning is closely aligned. We have taken on a range of voluntary actions, including alignment of DFES and a commitment to publish annually alongside DNO peers. This is in addition to increased whole systems-focused regulation, including a new whole system licence condition requires us to cooperate with transmission licensees to seek to identify actions and processes that advance the efficient and economical operation of the electricity system.

2. Separation would negate the benefits of the distribution equalised incentives regulatory framework

As set out in the FSO consultation, separation of system from network operation is ultimately designed to best facilitate decarbonisation whilst optimising affordability and service for customers. Separation of DSO from DNOs would not deliver these objectives.

Separation would negate the benefit of totex regulation whereby DNOs internalise the risk of their investment decisions and optimise across a range of factors to find the most efficient network solution.

Put in simple terms – under the current totex price control, DNOs have very strong incentives to find the lowest cost solution, and this means they have strong incentives when enacting DSO functions to use techniques such as flexibility payments to avoid or delay network investment. This drives down overall cost for consumers and would be lost if DSO functions were to be taken on by FSO. This is different to the system that exists at transmission level, where network and system operation are regulated separately and as such do not benefit from the totex mechanism.

Additionally, the risks present on the transmission network that separation of system operation from network operation seeks to mitigate do not exist in the same way at distribution. As set out in our response to Ofgem's RIIO-ED2 framework consultation, DNO/DSO separation risks creating boundaries between DSO and non-DSO functions, either through output incentives or cost assessment treatment, that would undermine the RIIO approach to regulation, which is already designed to mitigate any perceived or actual conflicts of interest.

We highlighted that:

Ofgem built the RIIO-ED framework to meet the challenges of the transition to a low-carbon future, including through the use of flexibility solutions and innovation to minimise constraint management costs. Ofgem now needs to let the system it already built work. DNOs are the right parties to continue holding the DSO role.

Ofgem ought therefore to seek to avoid recreation of the problematic regulatory regime that has been developed at transmission level, also highlighted in our ED2 consultation response:

A separate price control for DSO activity would lead to all the same regulatory headaches that Ofgem has faced in respect of the transmission system. Ofgem must avoid these pitfalls.

Further, our investments are less lumpy than transmission investment and the risk of stranded assets is therefore much lower. Indeed, our ED2 draft planning shows that the majority of

reinforcement-driven investment is required on the LV network, which will be required under any decarbonisation pathway. The risk of stranded assets at EHV is extremely low where case by case analysis is possible. Planning and execution of investment at distribution level also has significantly shorter lead times than on the transmission network which ensures that investment can be directed to where it is needed most in response to customer needs.

3. Separation will give rise to additional costs for consumers

We argued in our ED2 consultation response that DNO/DSO separation is likely to involve additional costs, such as administrative costs, that will be borne by energy consumers and may impact service quality:

Separating DSO functions would be a damaging and retrograde step for energy consumers that would lead to higher costs over the longer term and a loss of clear accountability for network stability.

The number of DNOs compounds the administrative complexity and cost of carving out DSO from DNOs which will ultimately be borne by consumers.

Separating the DSO functions would also remove the comparative cost benchmarking benefit which drives efficiency for customers amongst DNOs. The existing comparative competition drives down overall costs, which enables Ofgem to avoid setting allowances too high, and means distribution is a very different case to the transmission networks. Such comparative assessment would be lost if DSO functions were to be taken into the FSO.

Furthermore, additional synergistic benefits are possible at distribution level which benefit consumers in terms of cost, quality of service and the possible rate at which decarbonisation can be facilitated. The opportunities for synergies in our network investment, notably between asset maintenance and reinforcement, are much greater when decisions are taken on a combined basis. The opportunity for synergistic investment across asset renewal and reinforcement would be lost if DSO were to be separated from DNOs.

4. Customers' quality of service will be negatively impacted

Moving DSO functions away from DNOs removes clear accountability for who provides the service and the quality of that service.

Synergies present an opportunity for an improved service for customers. For example, as highlighted in our ED2 consultation response, decisions on relatively small reinforcement projects (to increase network interconnection) or investments in technology at lower voltages can have a significant bearing on interruptions performance, including restoration time. Yet operational performance can also have a significant bearing.

The current incentives to avoid or shorten distribution power outages have been very successful in improving customer outcomes. If the DSO role is separated from DNO, it is difficult to see how such strong and effective incentives can be perpetuated.

The proposed timing of a decision around DSO institutional arrangements is unhelpful and risks delaying investment in DSO in the short term.

The proposal to make a decision by 2023 conflicts with the ED2 framework and would require Ofgem to make a decision on optimum DSO structure based on very limited data availability. DNOs are finalising RIIO-ED2 plans which have been put together to meet Ofgem's baseline requirements for DSO, including building in separability to systems. Although the DSO functions in GB are advanced by global standards, and Ofgem's baseline requirements for ED2 will see a significant step-up in capability, substantive DSO functionality and the markets that will feed it are still immature. The next five years should be focused on laying those foundations for the future. If a decision is

proposed by the start of ED2, this could lead to reluctance from DNOs to make investment in the remainder of ED1 pending a decision, thus delaying progress.

Our preference is that a decision is delayed until the end of ED2 when Ofgem will have comparable data to assess performance to make an informed decision, enabling investment and progress in the medium term.

Other proposed enhanced functions

To the extent that the additional enhanced functions proposed for the FSO are applicable to the transmission network and therefore do not contradict the arguments set out above, we are supportive in principle of the FSO having further enhanced functions.

We disagree however with some of the specifics mentioned:

- **Decarbonisation of heat and transport (3.2.7):** for some of the functions described in this section, there is a risk that advising and coordination with devolved administrations and local authorities on Local Area Energy Planning represents duplicative effort with DNOs, in particular the functions set out in the RIIO-ED2 DSO baseline requirements Activity 1.1¹. This is not in the interest of the customer, causing inefficiencies in resourcing for local government, risking contradictory advice being given, and duplicating socialised costs for customers.
- **Future system operability, engineering standards and energy code development (3.2.9):** as set out in our response to the Energy Codes Reform consultation response, we are of the view that the FSO should not be the strategic body for energy code reform for a number of reasons. Its development from the ESO could make it a rule maker and rule taker, therefore damaging its actual or perceived independence. Furthermore, adding wider code management to the FSO's core remit could dilute its focus on whole system and net zero objectives. Further detail is included in our Energy Codes Reform consultation response.

13. What are your views on our proposed characteristics and attributes of a future system operator and how the models presented would deliver against them? Are there other characteristics or attributes that we have not yet considered?

The proposed characteristics and attributes set out in the consultation appear sensible.

14. Are we considering the right organisation models for the FSO? And why?

We are of the view that a highly independent corporate body model within the public sector is the most appropriate organisational model. The activities proposed for the FSO cannot be easily incentivised by outcomes-focused regulatory mechanisms and private ownership is therefore not in the best interest of consumers.

This argument also informs the extent of activity for which the FSO is responsible. By moving more activities under the remit of the FSO, the benefits of privatisation are lost.

15. Are we considering the right elements for the FSO's regulatory and accountability frameworks? And why?

The proposed elements of the FSO's regulatory and accountability frameworks appear broadly sensible.

¹ Plan efficiently in the context of uncertainty, taking account of whole system outcomes, and promote planning data availability.

16. Do you have views on the level of shareholding or control involving other ‘energy interests’ and the FSO at which a conflict of interest would become a concern?

We have set out above our preference that the FSO is a public body. Any level of shareholding would risk giving rise to a perceived conflict of interest. It is also difficult to see what would be gained from partial private ownership, given measuring and incentivising performance for the organisation in private ownership will be difficult.

17. Are we considering the right implications of our proposals for Elexon and Xoserve?

Plans to manage the impact of proposals on Elexon and Xoserve appear appropriate although the extent of our visibility of the impact is such that we are not able to comment in detail.

18. What is your view on the preferred implementation approach? Please explain why.

The proposed implementation approach appears reasonable.

19. Based on the areas where we are considering new and enhanced roles and functions for the FSO, which of these should be prioritised for development? Please explain why.

We are in favour of prioritising the first two enhanced functions for DNO co-ordination.

As stated in the response to Q12, we are in favour of delaying a decision around DSO to the end of the ED2 price control to assess how well the current DSO model is working.

20. What do you believe are the risks to implementation? How can these be mitigated?

We have set out risks above in our response to Q12. The risk of a decision being rushed around DSO functions being undertaken by the FSO could lead to delayed investment which would negatively impact energy consumers, and could lead to a decision being rushed without access to appropriate data to make an informed evaluation of DNOs’ performance.

21. Do you have any comments on potential implications of implementation for you, your organisation, or other stakeholders?

As stated in the response to Q12 above and for the reasons set out therein, whilst we are supportive of FSO separation at transmission level, the same principles do not automatically apply at the distribution level.

Uncertainty over DSO separation could also reduce appetite to invest in DSO functions, or may place upwards pressure on the cost of capital for an organisation tasked with such uncertain investments (and ultimately this would raise costs for energy consumers).

We have no significant points to make on questions 22-26 below on the impact assessment.

22. What is your view on the position there are likely to be cost savings across the energy system from an increased “whole system” view, as described in paragraphs 47-52 of the IA? If so, is the potential magnitude of savings illustrated fairly in the IA? If not, why not?

23. What is your view on the conclusion that policy intervention is likely to increase the benefits of onshore electricity network competition, as described in paragraphs 53-59 of the IA? If you agree, is the potential magnitude of savings illustrated fairly in the IA? If not, why not?

24. Do you think that the impact assessment has identified and considered the key costs and benefits of policy intervention? If not, can you provide details on other impacts that have not been considered?

25. Do you think that the distribution of impacts is fairly represented, with impacted groups correctly identified? Outlined in table 5 of the IA.

26. We invite respondents' views on whether the proposals for energy system governance reform may have a different impact on people who have a protected characteristic (age, disability, gender re-assignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex or sexual orientation), in different ways from people who don't have that characteristic.